

PROVINCIAL GOVERNMENT,
LEGISLATIVE BUILDING,
EDMONTON, ALBERTA

WITHIN OUR BORDERS

AN ALBERTA GOVERNMENT PUBLICATION

SEASON'S GREETINGS



All Alberta Landmen Now Require License

ALBERTA LANDOWNERS MAY now ask for proof that the individual who is negotiating with them for the acquisition of the surface of land is lawfully authorized, as all landmen are now required to be licensed by the Registrar of Landmen of the Alberta Department of Mines and Minerals.

Since The Landmen Licensing Act went into effect on July 1 of this year, 228 five-year licences have been issued to government employees, and 433 to industrial landmen. There is a \$25 fee for obtaining a five-year licence. Ten licences have been taken out by persons on temporary employment, such as university students on summer jobs. The Act provides a procedure for investigating complaints arising from the activities of landmen.

For licensing purposes, a landman is defined as anyone engaged in negotiation for, or acqui-

RECORD APPRENTICE REGISTRATION INDICATES GRADUATIONS INCREASE

THE ALBERTA APPRENTICESHIP Board is within sight of and may surpass its goal of 7,200 graduates from the apprenticeship program in the five years 1966-1970.

To the end of September this year, more than 3,500 had graduated in the period since 1966, leaving 3,700 needed to meet the goal by the end of 1970. The 1967-1968 school term established a record of 7,500 apprentices attending school courses and this is expected to be exceeded in 1968-69.

Trends toward improved school attendance and lower dropout rates indicate a substantial

increase in graduate numbers in the years immediately ahead.

Nearly 100 per cent of the apprentices in the field are attending the courses prescribed for them. This compares with only 3,300 in school out of some 4,460 in the field ten years ago.

The dropout ratio in the years from 1964 onwards has decreased from the previous average of one in two, to one in three.

Three new trades were added this year to the 28 already in the apprenticeship program, and more are expected in future.

The biggest number of apprentices, about 1,500, are in the motor mechanic trade, with the electrician trade a close second at just over 1,200.

Other heavy registrations are in the trades of communication electrician, welder, plumber, sheet metal mechanic, heavy duty mechanic and carpenter.

tion of an interest in the surface of land required for drilling or mining operations, the laying of pipe lines, construction of power lines, or the building of highways.

Survey Investigates Possibility of New Water Supply Through Diversion of North Saskatchewan, Athabasca

THE POSSIBILITY of enriching the water supply of moisture-deficient south-eastern Alberta by diverting water from the north-western section of the province is being studied by the Water Resources Division of the Alberta Department of Agriculture.

A team of about 50 technologists, drillers and engineers is presently engaged in probing the feasibility of river diversions under the joint Federal-Provincial Saskatchewan-Nelson River Basin Study. The projects involved are, in many instances, identical to those being studied under the Alberta P.R.I.M.E. program.

The Alberta studies however, require more detail than the joint Saskatchewan-Nelson study, which is directed mainly towards the location of possible storage sites and diversions and the determination of the effects of this storage on stream flows.

Similarity between the two studies within Alberta permit both to be conducted in the same operation, and the Water Resources Division is

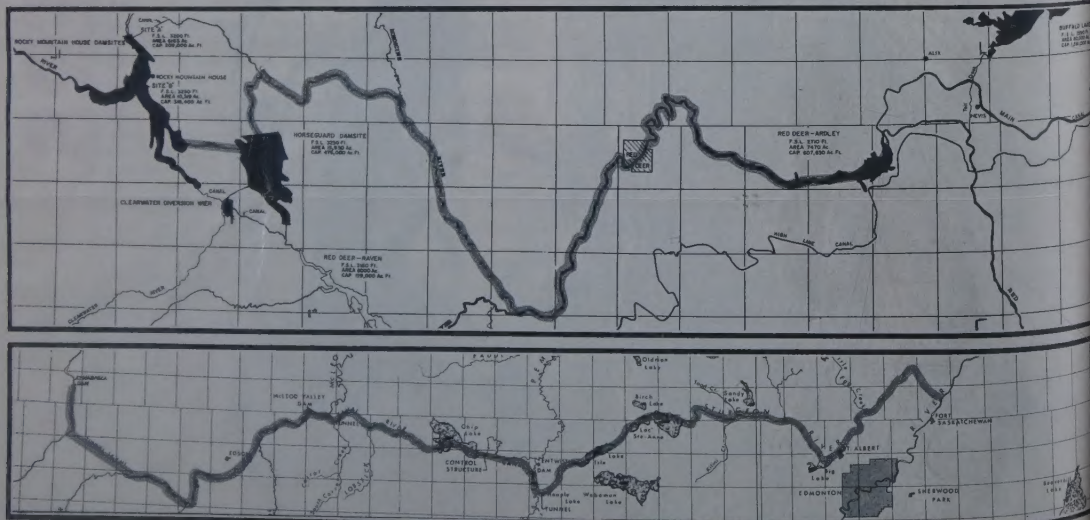
currently involved in the investigation of eighteen dams and diversions extending from the Athabasca River to the South Saskatchewan River.

One of the projects under investigation is the possibility of establishing a reservoir in the Ardley region. This would be a storage and diversion centre for water obtained from the North Saskatchewan River by means of a diversion in the Rocky Mountain House area, to the Horseguard storage, a stand-by reservoir. From Horseguard, the water would travel via Horseguard Creek, Last Hill Creek, Medicine River and Red Deer River to Ardley. From there, a canal to Craig Lake and the south-eastern water distribution system is being considered.

To replace that water diverted from the North Saskatchewan River by the proposed system, a second possible diversion is being studied. This one begins with a dam across the Athabasca River. From this reservoir a tunnel leads to the McLeod River where another dam would be constructed in the McLeod Valley. A canal would connect the

McLeod with the Lobstick River which would carry the water to Chip Lake. From there, another canal will lead to a reservoir on the Pembina River, from which two possible courses are being surveyed. The first connects with the North Saskatchewan River east of Edmonton via Hoople Lake, Lake Isle, Lac Ste. Anne and the Sturgeon River. The second joins the North Saskatchewan west of the capital via a tunnel and Tomahawk Creek.

Each survey is laid out on the "critical path" process to allow equipment, when finished at one section of the project, to proceed to work immediately at another location. The schedule for such a survey starts with the objective, moves to site selection, field inspection, ground control, mapping, geological field inspection, layout of drilling program for dams, diversion structures and spillways. Foundation drilling, pressure testing, borings, pit drilling and laboratory testing are all carried out at the same time. Then follows the preliminary design and drafting, preliminary cost estimates and the final, complete report.



To provide water for moisture-deficient southeastern Alberta, diversions are proposed for the North Saskatchewan River (top) and the Athabasca River (bottom).

"EYE-IN-SKY" WATCHES POTENTIAL SPEEDING AREAS

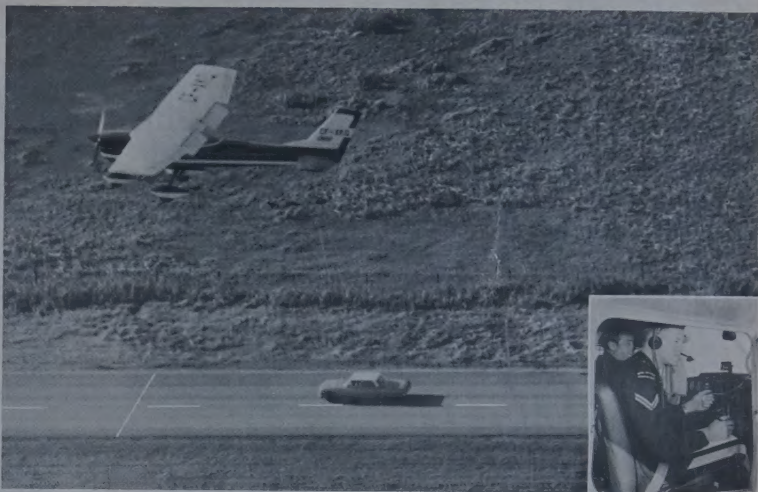
A PILOT PROJECT, designed to assess the merits of patrolling Alberta's highways with aircraft, has been undertaken this year by the Alberta Attorney General's Department in co-operation with the R.C.M.P. Traffic Division.

With the co-operation of the Alberta Highways Department, carefully measured markings were painted on road surfaces at three different highways areas near Edmonton. The areas were selected on the basis of being potential speeding areas.

The markings consisted of several cross-highway painted stripes, spaced one quarter mile apart. Preceding these, the highways were marked with painted symbols of aircraft, and the words "Aircraft Patrolled". Roadside sign standards were also erected adjacent to the measured zones.

R.C.M.P. personnel, using light aircraft, fly a parallel pattern to traffic. Using stop watch timing as ground vehicles pass through the marked quarter-mile zones, the officers can determine those exceeding speed limits and by how much. Radio contact with nearby ground patrol vehicles allows ready interception without need of any high speed chases on the highway.

Results of the pilot project are being studied by provincial authorities.



Patrolling aircraft watches for potential traffic hazards over a wide area and times vehicles in marked zones. (Inset) RCMP observer clocks potential speeder with stop watch.

Study Proves Hearing Loss Due to Farm Tractor Noise

FARM TRACTORS are causing permanent hearing loss to thousands of farmers, according to a recent study supervised by the Department of Agricultural Engineering, University of Alberta and the Industrial Health Services Division of the Alberta Department of Health. The paper prepared on this study deals specifically with farm tractor noise, its immediate effects on the driver and its possible long-term effects as a health hazard. It states that the noise of the majority of tractors is well above safe limits for hearing and may be causing many tractor operators to go permanently deaf.

First of all, to determine the noise level of the major contributors to farm noises, tests were run on nineteen tractors including seven well-known makes, some with cabs, and ranging in age from 1947 to 1967 models. All but three were diesels. These were tested during regular field operations running at ¾-full R.P.M.

The results showed that the mean overall average noise sound pressure level was 104 decibels. The highest individual level recorded was 114 decibels on a new tractor where the operator had removed the muffler "because it got in the way", to a low of 92 decibels. An average overall noise level of 104.3 db. was recorded on tractors with cabs, against 103.9 db. for tractors without cabs.

These noise levels can be compared to the familiar standards of a noisy home, which rates 40 to 60 db.; an automobile at 20 feet, 70 to 80 db.; a power lawn mower, 100 to 110 db.;



and a loud automobile horn at 3 feet, 110 to 120 db.

Tests were made of tractor drivers' hearing to determine what these noises do. An audiometer was used to detect any deafness ascribed to tractor driving. It should be noted here that the human ear is responsive to frequency ranges from about 16 to 16,000 cycles per second for normal sound intensity levels. The 30,000 nerve endings in the inner ear are susceptible to noise damage, a noise-induced deafness which cannot be helped by hearing aids or surgery.

The development of high tone sensorineural hearing loss seems to be part of the natural course of growing older and the drivers tested show little difference from others in their age group in the low frequency range. However, a 10 to 12 decibel greater hearing loss was indicated in the high frequency range. Individual readings of those tested indicated that the younger group suffer a greater hearing loss than that attributed to natural aging in the high frequency range while the older group shows the loss moving into the speech frequencies of 2,000 and 3,000 cps. The temporary threshold shift for tractor drivers working an average of 4.2 hours on tractors with a mean noise level of 104 db. shows that the overall losses are fairly consistent in all frequencies tested. Although these losses are only temporary, it is demonstrable that they may become permanent.

Farm tractor drivers may not notice that they are slowly going deaf, when in fact they are. They

SAFE TRANSPORTATION OF RADIOACTIVE CARGO SUBJECT OF SEMINARS

ONE HUNDRED AND seventy truck, rail and air transportation personnel, fire department and police officials, and industrialists recently completed one day seminars on safe transportation of radioactive materials.

The seminars, held consecutively in Edmonton and Calgary, and sponsored jointly by the Workmen's Compensation Board and the Division of Industrial Health Services, Alberta Department of Health, heard speakers from those departments as well as from the Atomic Energy Control Board, Ottawa.

Discussions were held on the ever increasing use of radioactive materials as an important tool in today's highly industrialized environment and the subsequent shipments of these materials by road, rail and air. This has pointed out the growing need for adequate controls in packaging and better understanding of safe handling procedures. Guidelines and safeguards which have been established in packaging, whereby maximum risk levels are being maintained at well below safe limits of radiation exposure to other cargo as well as to personnel involved, were outlined. These included regulations regarding labelling, and the tolerance levels of packages to serious accident impact, and fire, for various types of containers.

Alberta is one of only two provinces to have supplemented the National Transportation Act with provincial regulations. Under the Public Service Vehicle Act it is required that persons transporting radioactive materials in public service vehicles obtain a permit from the provincial Highway Traffic Board. Prerequisites of the permit issuance include compliance with applicable Federal Regulations and Alberta Department of Health requirements.

can protect themselves by using ear muffs or ear-plugs available at any safety appliance suppliers. It is concluded by this report, however, that tractors could be made less noisy by modification at the factory.

"Within Our Borders" is a publication designed to acquaint the people of the Province with the administration of the Alberta Government.

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STUDENT GRANTS, LOANS, BURSARIES INCREASE 30-35%

World Wheat, Oats Championships To Alberta At Royal Winter Fair

MORE STUDENTS are receiving more money in grants, loans and bursaries than ever before in Alberta, and the upward trend is expected to continue. The Students' Assistance Board, Alberta Department of Education says that rising student population and improved secondary education facilities in Alberta are the main reasons for the upsurge in government assistance to students. The end result will be a substantial increase in the number and quality of skilled people available to Alberta.

An overall increase of 30 to 35 per cent in grants and loans is noted in figures released by the Board for the first half of fiscal 1968, compared to the same period last year. There is similar increase in the number of students receiving the awards.

In Province of Alberta awards, 10,557 students have received grants and scholarships totalling \$3,010,499 this year, compared to exactly 7,000 students receiving \$1,855,368 for the same period last year.

Estimated grants for the whole of fiscal 1968 are \$3,716,260, an increase of more than \$1 million over the actual \$2,527,046 in grants for fiscal 1967.

The average award has increased in value from \$265 in 1967 to \$286 in 1968. This is due partly to a change in the structure of the grants system. As of April 1, 1968, the method of granting scholarships was changed to put the emphasis on academic achievement, and the maximum grant to first-year and undergraduate students increased from \$100 to \$400 annually.

Additionally, the amount awarded in fellowships for post-graduate studies was increased by about \$500 each to \$4,200 each for fellowships and \$3,000 or \$3,600 for scholarships. The number of awards in both categories increased slightly.

Province of Alberta Loans, repayable at 3.5 per cent simple interest starting a year after completion of studies, increased from 1,590 valued at \$751,000 in the first half of fiscal 1967 to 4,157 valued at \$1,659,405 so far this year.

The 1968 half-year total exceeds that for all of 1967, when 2,468 students borrowed \$1,126,303. Provincial loans for all of fiscal 1968 are estimated at \$2,781,550, well over double the 1967 figure.

The provincial loans are designed to supplement the Canada Student Loans Plan administered by the Federal government, whose interest and repayment rates are higher.

The provincial loans plan comes to the aid of



World Wheat Champion for 1968, Harold E. Hansen and Mrs. Hansen of Vulcan admire their newly won trophy at the Royal Agricultural Winter Fair in Toronto. Other Alberta winners at the Fair included World Oat King Denis A. Rondeau of Bonnyville; and T. Fujimoto and Sons of Rainier, winners of the International Trophy for seed potatoes. In the livestock division, awards went to Fred Noad of Olds whose entries were named Canadian and Reserve Champion crossbred market steers and Reserve Champion market Aberdeen Angus; to T. G. Hamilton of Innisfail for the Champion Shorthorn market steer; the Kallal Hereford Ranch of Tofield for the champion group of five steers, and to Warren Smith of Olds for the champion group of 12 steers. Clarence Visser of Edmonton captured the S. E. Todd Challenge Trophy, awarded the best pig carcass entered in the Royal.

students who are ineligible for federal loans or who have used up their federal quota and prove financial need.

Canada loans for April-October 1967 totalled \$4,483,740 to 7,245 students. For the corresponding 1968 period, 8,391 students borrowed \$5,663,875.

For all of fiscal 1967, 10,500 students bor-

rowed \$6,417,405 under the Canada loans plan. The estimated total for fiscal 1968 is \$7,727,370.

The total number of students assisted for the first half of fiscal 1967 was 10,878; this year for the same period it was 12,746.

The total money involved in awards and loans was \$7,090,807 for the first half of fiscal 1967; for the same period this year it was \$10,333,779.

Coming Events

DECEMBER

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| 1 | Juenesses Musicales Recital | Calgary |
| 4 | University of Lethbridge Classical Concert | Lethbridge |
| 4-6-7 | Rotary Club Carol Festival | Drumheller |
| 5 | Annual Fall Swine Sale | Camrose |
| 6-7 | Junior College Drama (two one-act plays) | Medicine Hat |
| 6-7 | Alberta Figure Skating Competitions | Medicine Hat |
| 9 | The Messiah — Calgary Choral Society | Calgary |
| 9-13 | Farmers Union of Alberta Convention | Edmonton |
| 11 | Junior Chamber of Commerce Xmas Carol Festival | Calgary |
| 11-21 | Theatre Calgary, "Gaslight" | Calgary |
| 14 | Calgary Philharmonic Xmas Box Concert | Calgary |
| 17 | C.H.Y.A. Hans Gmoser Ski Film | Calgary |
| 20 | Calgary Youth of Christ Xmas Festival of Song | Calgary |
| 20 | Theatre Calgary Mini-Show | Calgary |
| 20-28 | Annual Youth Conference on Alcohol & Drug Problems | Banff |
| 26-30 | B'Nai B'Rith Youth | Banff |

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| 27-Jan. 2 | C.Y.H.A. Powder Snow School | Hilda Creek Youth Hostel |
| 27-Jan. 2 | C.Y.H.A. Ski Mountaineering School | Banff-Jasper Highway |
| 28-30 | Western Association of Anthropologists and Sociologists | Banff |
| JANUARY | | |
| 10-12 | Youth Seminars | Edmonton |
| 17-19 | Youth Seminars | Calgary |
| 23-25 | Alberta Retail Implement Dealers Association Convention | Edmonton |

During the coming year Alberta will be the scene of many events of provincial, national and international interest. Within Our Borders is pleased to list these in its Coming Events column. Information should be forwarded to Within Our Borders, Room 1618, Centennial Building, Edmonton.